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Understanding Women's Preconception Health Goals: Audience Segmentation Strategies for a Preconception Health Campaign

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Abstract

This article discusses the social marketing planning process and strategies used to design a preconception health campaign, *Show Your Love*, launched in February 2013. Developing a social marketing strategy for preconception health is a challenging endeavor, in part because preconception health represents a set of diverse behaviors and the audience for the campaign is quite large, encompassing all women of childbearing age whether they intend to become pregnant or not. The network of organizations implementing the campaign, the National Preconception Health Consumer Workgroup, required a broad audience segmentation strategy; therefore, two large audiences were selected. This commentary describes the two primary audiences selected for the campaign based on the Transtheoretical Model—intenders (those in contemplation, preparation, and action) and nonintenders (precontemplators)—and explores how levels of knowledge, motivations, the campaign product, and the campaign goals are distinct for each audience. Additionally, the authors describe potential extensions to the segmentation strategy that could offer finer grained approaches for social marketers who may be building on the *Show Your Love* campaign or designing other programs in this area.

Keywords

prenatal care; health; partnerships; best practices; innovations

Introduction

A baby born with birth defects is a common and serious issue in the United States; each year about 1 in every 33 babies born is affected by a birth defect (Centers for Disease Control and Prevention [CDC], 2006). Not only are birth defects a leading cause of infant deaths, but they also increase the chances of an infant having an illness or long-term disability (CDC, 2006). Preconception health (PCH) and health care addresses risk factors, promotes health, and manages potential chronic health conditions that could affect maternal health,

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conception, and fetal development as shown in Table 1 (CDC, 2012). Undertaking certain behaviors, as shown in Table 1, during the preconception period has been shown to reduce the risk of having a baby with a birth defect or that is low birth weight (Kent, Johnson, Curtis, Richardson, & Atrash, 2006) making these behaviors a prime target for enhancing women's and infants' health and birth outcomes. One of the challenges social marketers face is how to market PCH as a long list of diverse behaviors that potentially influence maternal and child outcomes. To address this issue, we describe the development of a social marketing strategy focused on PCH.

Why Focus on PCH?

In 2005, CDC convened a Select Panel on Preconception Health Care that examined the evidence related to PCH, relevant PCH behaviors, and the need for PCH for women, men, and families (Posner, Johnson, Parker, Atrash, & Biermann, 2006). Five national workgroups were formed to extend and implement recommendations generated by the panel. The most relevant for this article is the National Preconception Health Consumer Workgroup that was tasked with developing and implementing a social marketing plan to increase women's awareness of PCH and improve their PCH behaviors (Posner et al., 2006). The National Preconception Health Consumer Workgroup comprised a mix of health department representatives, large national nongovernmental agencies, local nonprofits, and federal agency representatives dedicated to maternal and child health; individual members are listed in the acknowledgments section. As such, the social marketing strategy that was designed and implemented by these partner organizations needed to be broad enough to cover the organizations' constituents and clients, rather than so narrowly defined that it would not fit their local needs and client base.

Show Your Love Campaign

The social marketing strategies used in the *Show Your Love* campaign were developed through a collaborative process with the National Preconception Health Consumer Workgroup and based on formative research with women and couples (Lewis et al., 2013; Squiers et al., 2012, 2013). The *Show Your Love* campaign was designed to be a brand associated with self-worth, good health, empowerment to achieve goals, and as a way to nurture and love oneself. Specifically, the campaign brand incorporated values associated with being empowered to take control of one's life and being open to change, nurturing/loving oneself, and being an opinion leader. The *Show Your Love* campaign was launched in February 2013; more information about the campaign can be found at http://www.cdc.gov/preconception/showyourlove/.

For women who wish to have a child, a goal of the campaign is to increase the proportion of women who plan in advance when to become pregnant and who engage in positive PCH behaviors prior to becoming pregnant through increased awareness, knowledge, and favorable attitudes toward PCH. For those women who do not wish to have a child, pregnancy prevention and healthy living and wellness are underscored. The campaign's long-term goal seeks to elevate PCH to the same level of awareness and significance as prenatal health has among women of childbearing age. The ultimate goal of the campaign is to improve women's health and decrease birth defects.

Challenges to Marketing PCH and Related Behaviors

Developing a social marketing plan about PCH was challenging for a number of reasons. First, promoting PCH to women so they are aware of what PCH is, why it is important, and when they need to begin to make behavioral changes is challenging because of both the terminology and complexity of PCH itself. The term PCH is not well known among consumers (Lewis et al., 2013; Squiers et al., 2013). Second, "conception" implies pregnancy, and not every woman wants to be pregnant, which makes sharing information about PCH with women who do not want or plan to be pregnant immediately a significant challenge. Third, PCH is not one behavior; rather it is a set of behaviors that includes lifestyle behaviors (e.g., diet, exercise, drug, and alcohol use), medical screenings (sexually transmitted diseases [STDs], human immunodeficiency virus [HIV]), contraceptive use, vaccinations, and medical treatment and care (managing chronic diseases). Having so many behaviors as part of PCH may result in information overload and women not being able to recall the specific behaviors comprising PCH (King, Freimuth, & Lee, 2008; Whitehill King, Freimuth, Lee, & Johnson-Turbes, 2013). Fourth, the behaviors are dissimilar in that some are behaviors women can practice on their own and others involve access to health care services that only a health care provider can provide to women.

One of the biggest challenges in developing a PCH social marketing plan is finding one single marketing strategy that resonates with such a large and diverse audience: women of reproductive age (all women aged 18 to 44). One approach to address this challenge is to segment the audience into smaller groups. Audience segmentation is a systematic approach for dividing an audience into distinct subgroups based on characteristics that influence their receptivity to information and how they react to a service, product, or behavior (Forthofer & Bryant, 2000; O'Sullivan, Yonkle, Morgan, & Merritt, 2003). To identify the most appropriate audience segments that would best serve the goals of the National Preconception Health Consumer Workgroup organizations, we conducted a literature review (Squiers et al., 2009; Squiers, Lewis, Isenberg, & Lynch, 2010), secondary data analyses (Squiers & Lewis, 2010; Squiers et al., 2009), and formative research (Lewis et al., 2013; Squiers et al., 2013).

Our review of the information provided by these different approaches revealed that planning for a pregnancy was a key factor that significantly differentiated women with respect to their knowledge, attitudes, and motivations to engage in PCH and in terms of engaging in PCH behaviors themselves. In addition, pregnancy planning is associated with better outcomes for women (lower levels of depression, stress, vaginal bleeding, bladder, and kidney infections; Messer, Dole, Kaufman, & Savitz, 2005; Mohllajee, Curtis, Morrow, & Marchbanks, 2007) and their babies (less risk of low birth weight, preterm birth, and small-for-age gestational births; Mitchell, Levis, & Prue, 2012; Shah & Ohlsson, 2009). Based on our review and the needs of the National Preconception Health Consumer Workgroup, we used pregnancy planning status to segment the larger audience of women of preconception age.

We used an adaptation of the Transtheoretical Model (Prochaska & DiClemente, 1983) as a framework to help illustrate the steps that many women undergo when planning a pregnancy (see Figure 1). This model is often referred to as the Stages of Change and describes the phases an individual passes through when changing a behavior. In precontemplation, women are not yet ready to become pregnant; they are not thinking about it yet, and their lifestyle

and behaviors are not aligned with preparing for a pregnancy. In contemplation, women are starting to think that they may want to be pregnant at some point in the future and begin to learn about PCH behaviors and all the things they need to do to prepare for a pregnancy and baby. In preparation, women set a time frame for getting pregnant and start to align their behaviors and lifestyle to get ready. Ideally, women would begin to practice PCH behaviors during this stage to ensure that their minds and bodies are healthy and ready for a pregnancy. During action, women are actively trying to get pregnant and may in fact become pregnant. The Transtheoretical Model also includes subsequent stages: maintenance and termination. However, because preconception health refers to the time period before becoming pregnant (which occurs during the action stage) these stages, which would occur after pregnancy, are not relevant to our adapted model.

The model of pregnancy planning described previously is an ideal. The transtheoretical model has limitations as a framework for pregnancy planning, particularly because planning a pregnancy is not a reality for all women; not all women proceed in a linear fashion through all stages, and the stages may reflect different time periods and durations for women. Considering that 50% of all pregnancies in the United States happen to women who were not planning to be pregnant (Finer & Henshaw, 2006), not all women go through the stages outlined previously. Women who have not planned their pregnancies may have very well skipped both the contemplation and preparation stages. By skipping these stages, women miss the opportunity to learn about and knowingly and actively engage in positive PCH behaviors. Without learning or participating in these behaviors, women may increase their risk of having unplanned pregnancies and babies with poor maternal and infant outcomes. Women in the precontemplation stage likely filter out messages related to pregnancy and having a healthy pregnancy, baby, or family because they think that the messages are not applicable to them (Lewis et al., 2013; Squiers et al., 2009, 2013). Thus, alternative messages need to be developed that can promote PCH to nonintenders without assuming that these women will be motivated by the possibility of increasing their chances of having a healthy pregnancy, baby, or family.

However, women who are intending to become pregnant and those not intending represent an important demarcation of women of childbearing age. Based on the critical motivating factor of wanting to plan for a pregnancy, we segmented the audience into *intenders*—women who are currently planning a pregnancy (including contemplators, preparers) in the next 12 months or actively attempting to become pregnant (actors)—and *nonintenders*[1]—women who are not yet thinking about becoming pregnant and/or engaging in pregnancy prevention. Secondary data analyses of existing data sets (Porter Novelli, 2009) and recent focus groups (Squiers et al., 2013) with women indicated the need for separate products, messages, and communication techniques for these two groups. In the next sections, we present audience profiles of the two primary segments (intenders and nonintenders), including a description of the characteristics of women in each segment, what they know about PCH, what motivates them, and how PCH was identified as a product and positioned by the *Show Your Love* social marketing strategy. Finally, we describe potential refinements

[1]This report refers to nonintenders as women who are not currently planning or intending to become pregnant. “Nonplanner” is a term for this same category of women that has also been used in lay materials (e.g., campaign website).

of our segmentation strategy and potential fine-grained targeted approaches that could be implemented by social marketers that may be designing programs in this area. These strategies can be used to segment women of childbearing age into smaller subgroups, so that messages can be developed that resonate with women who have different motivations and goals and that may amplify our current messaging strategy that was designed for a broad implementation by the National Preconception Health Consumer Workgroup.

Discussion

The key to developing an effective campaign is to understand the target audience. To profile the two main target audiences—intenders and nonintenders—we reviewed the literature, conducted primary research (i.e., focus groups), and analyzed data from three different national surveys of women of childbearing age. These data sources helped to define and differentiate the two primary audience segments, including what they know about PCH, how they perceive PCH as relevant, what motivates them, and what their goals are.

Audience: Intenders

Who Are the Intenders?

The crux of audience segmentation is to identify similar characteristics in individuals and then group the individuals into categories that optimize their homogeneity for the purposes of appealing to their likes and dislikes (Forthofer & Bryant, 2000; O'Sullivan et al., 2003). The key commonality for intenders is their status related to planning a pregnancy. As we described previously, intenders may be in the stages of contemplation, preparation, or action (Figure 1) for planning a pregnancy. They can be contemplators who are just starting to think about getting pregnant but not yet acting on or carrying out any behaviors for pregnancy. They may also be in preparation where they are deciding on a timeline for getting pregnant and beginning to practice select PCH behaviors. Those in action are actively trying to get pregnant. In the *Show Your Love* campaign, intenders are considered women aged 18–44 who are planning to become pregnant in the next 12 months and in any of these three stages of change.

It is important to note that different studies asked about pregnancy plans in slightly different ways and used different sampling strategies and data collection methods. To address this limitation, we primarily used the GfK/Mediamark Research and Intelligence (GfK/MRI) Survey of the American Consumer 2009–2010, which surveys a nationally representative sample of over 10,461 consumers on a variety of health habits, media usage, and health beliefs as a data source for quantitative comparisons between intenders and nonintenders. For additional descriptive information, we conducted primary formative research with women of childbearing age (Lewis et al., 2013; Squiers et al., 2013) and reviewed descriptive data in previous studies. Data about intenders reveal several similar characteristics related to their demographics and lifestyle behaviors. According to GfK/MRI data, women who want to become a parent in the next 12 months represent 14% of women in the United States aged 18 to 44 years of age, and most are between the ages of 25 to 34. Almost half (48%) are White, 42% have a high school degree or less, 48% are currently working full time, and 45% make less than $50,000 per year (GfK/MRI, 2011). Sixty-two

percent of women who say they want a child in the next year are currently contracepting moms (Mitchell et al., 2012). Wilson and Koo (2008) found that women who wanted to have a baby were more likely to be in an established relationship and expected more support from their partner, which is consistent with the formative research we conducted with couples (Lewis et al., 2013). Table 2 highlights key characteristics of intenders and nonintenders.

What Do Intenders Know and Not Know About PCH and PCH Behaviors?

Porter Novelli's 2009 *HealthStyles* consumer survey of a nationally representative sample offers data about intenders' knowledge of PCH. Intenders obtain knowledge about PCH from a variety of sources but mainly from their doctors, family and friends, and the Internet. Specifically, 41% of intenders report health care professionals are their leading source for information regarding ailments or prescription drugs, followed by family and friends (18%) and the Internet (13%; Porter Novelli, 2009). Most intenders know something about PCH and specific PCH behaviors. Fifty-eight percent of intenders have seen, read, or heard of PCH (Porter Novelli, 2007, 2009).

Formative research with intenders offers additional insights. Focus groups with this segment found that nearly all intenders are familiar with PCH behaviors and know that women should avoid using illegal drugs, drinking alcohol, and smoking cigarettes before getting pregnant (Squiers et al., 2009). The majority of intenders also know that women should eat a healthy diet, talk to their doctor about pregnancy, be aware of family and medical history, and take a multivitamin with folic acid (Squiers et al., 2009).

Despite the knowledge of what a woman should do before pregnancy, few intenders are actively engaging in specific PCH behaviors (Porter Novelli, 2009). Lifestyle behaviors including taking a folic acid supplement, avoiding alcohol, and quitting smoking were viewed by intenders as behaviors that they would not undertake until a pregnancy was confirmed. While intenders (and women who are pregnant) are more likely than nonintenders to take or consume folic acid, over 40% still do not consume the recommended daily amount of folic acid (Parrott et al., 2009). Formative research with intenders found that although intender women were aware that alcohol consumption during pregnancy can cause birth defects, several felt that it was acceptable to drink while pregnant as long as it was in moderation, and many reported that they had drank some amount of alcohol during a previous pregnancy (Elek et al., 2013).

What Motivates Intenders?

Intenders are generally receptive to the idea of PCH because they are motivated by the idea of a healthy pregnancy and relate to the value proposition that PCH extends beyond the self and encompasses the health of the baby and family. Focus groups with women of childbearing age (18 to 44 years) found that many women planning a pregnancy saw PCH as something that could, most importantly, contribute to a healthy baby, but also provide a woman with a more comfortable pregnancy and even contribute to fertility (Squiers et al., 2013). Interviews with couples planning a pregnancy found that they may be motivated by the idea of planning a pregnancy together as a couple (Lewis et al., 2013). Additionally, Klerman (2006) found that women planning a pregnancy are more likely to receive

preconception care and are more likely to pay attention to and be receptive to messages about PCH. The desire to become pregnant and have a healthy pregnancy in this audience is strongly linked with the motivation to practice PCH behaviors.

Despite the fact that intenders are receptive to messages about PCH, their motivation to practice these behaviors may be linked to how at risk they feel for a negative birth outcome. Witte and Allen (2000) found that intenders rate birth defects as somewhat severe, but they do not necessarily feel at risk for having a baby with a birth defect. Further, formative research with women planning a pregnancy about alcohol use during pregnancy found that, although women were aware of severe birth defects associated with alcohol consumption during pregnancy, several indicated that they had drank alcohol during pregnancy or did not see a problem with drinking in moderation during future pregnancies (Elek et al., 2013). Additionally, research with couples about PCH demonstrated that couples may be more motivated to undertake prescribed PCH behaviors if they are aware of the negative consequences of not doing so, such as birth defects or other health problems (Lewis et al., 2013). Intenders are also motivated by the idea that planning a baby makes couple members feel closer to each other and enhances their feelings of mutual support (King et al., 2008; Lewis et al., 2013).

What Is PCH as a Product to Intenders?

In marketing PCH, determining how PCH will be described and positioned, as well as explaining the benefit an individual will get from performing the behavior, is critical to successfully moving individuals toward PCH goals. For intenders, the actual product is the set of PCH behaviors (Table 1). However, identifying the product as a set of behaviors poses some unique challenges because it involves presenting a package of multiple behaviors, instead of one specific behavior. To undertake multiple PCH behaviors, intenders will potentially need to accept new behaviors and establish new habits (e.g., take a multivitamin with folic acid; consult with a doctor about PCH, reject potentially harmful behaviors, e.g., limit the amount of alcohol, stop smoking, or modify a current behavior, e.g., eat healthier foods). While bundling behaviors can result in coaction on multiple behaviors (Johnson et al., 2008; Paiya et al., 2012; Whitehill King et al., 2013), the large set of behaviors involved in PCH may need to be broken down into smaller categories of actions that women can take before becoming pregnant. An example from the *Show Your Love* campaign materials for intenders can be found at http://www.cdc.gov/preconception/showyourlove/documents/Planner5.pdf.

Because intenders are generally motivated by the idea of a healthier pregnancy, baby, and family, PCH can be positioned as a pathway to achieve these goals. Intenders may also be receptive to PCH positioned as a checklist of behaviors to undertake before pregnancy that provides peace of mind that an individual or couple is doing all that they can to better the chance of a healthy baby, pregnancy, and family. PCH can also be positioned as a way to achieve control over personal and family health. Formative research showed that many women have a perceived lack of control over the health of their unborn baby. PCH can be positioned as a way to gain some of that control. Finally, PCH can be positioned as a way to enhance relationships. Research indicated that couples emphasized planning together for a

healthy pregnancy, baby, and family, suggesting that PCH can be thought of as a relationship-enhancing product (Lewis et al., 2013).

What Are PCH Goals for Intenders?

Regardless of the value proposition for the product "PCH," the goals for intenders span the three stages of planning and focus on knowledge, attitudes, and behaviors. Figure 2 displays the conceptual framework for promoting PCH to intenders. In contemplation, the goals are to increase women's awareness and knowledge of PCH and of the fact that the preparatory time frame for engaging in PCH behaviors occurs before pregnancy. In addition, PCH promotion should increase intenders' awareness that they should discuss PCH with their health care providers and also increase actual discussions with providers during all three planning stages (contemplation, preparation, and action). The most important goal for PCH promotional efforts is to increase the proportion of women of childbearing age practicing each PCH behavior.

Audience: Nonintenders

Who Are the Nonintenders?

The GfK/MRI Survey also provides key data about nonintenders. In the *Show Your Love* campaign, nonintenders are an audience segment not wishing to become a parent in the next 12 months. They include both women who already have children and women who have no children. Similar to intenders, most nonintenders are White (64%). Half are married and working full time. Their income is slightly more than intenders (42% make less than $50,000 per year compared with 45% of intenders), and they are slightly more educated (37% have a high school education or less compared with 42% of intenders; GfK/MRI, 2011). This may be a function of their age because chronologically this group tends to be younger than intenders (i.e., less than 25 years of age). One exception is a subgroup of nonintenders (17%) who do not intend to ever become pregnant. These women tend to be older (35 to 44 years old) than intenders and include women who either already have as many children as they want or women who may not ever want to have children (GfK/MRI, 2011).

From a PCH marketing perspective, nonintenders are an important audience segment given they comprise 86% of women 18 to 44 years of age (GfK/MRI, 2011). Not only do they represent the vast majority of women of reproductive age, but almost half of all pregnancies are unintended with the highest rates attributed to low-income, cohabitating women aged 18 to 24 years of age (Finer, 2006). Targeting nonintenders with messages about improving their health that are also relevant to PCH is critical to improving birth outcomes and the health of women. Table 2 highlights key characteristics of intenders and nonintenders.

What Do Nonintenders Know and not Know About PCH and PCH Behaviors?

Nonintenders are generally less aware of PCH as a concept than intenders, but a sizable portion (50%) of nonintenders have seen, read, or heard about PCH (Porter Novelli, 2007, 2009). Nonintenders who already have children but who do not wish to have more (83%) may contribute to higher levels of knowledge and awareness overall. A sizable majority of

nonintenders know that before getting pregnant women should avoid using illegal drugs (85%), drinking alcohol (87%), and smoking cigarettes (90%). The majority of nonintenders also know about the importance of having a healthy diet (79%), taking a multivitamin with folic acid (71%), being aware of family and medical histories (69%), and talking to their doctor about pregnancy (74%). However, fewer nonintenders are aware of the importance of being up-to-date on vaccines (46%) and getting a flu shot (17%) and exercising regularly (44%; Porter Novelli, 2007, 2009). Nonintending couples refer to PCH as something that is part of the planning process for having children, but some do not believe they should practice all of these behaviors unless they are actively planning for a pregnancy (Lewis et al., 2013). Overall, more than half of all nonintenders drink alcohol (60%) and a quarter smoke cigarettes, with 5% smoking a pack a day (GfK/MRI, 2011). Health care professionals are the most common source of knowledge of PCH and PCH behaviors for nonintenders (Porter Novelli, 2007, 2009; Squiers et al., 2013).

What Motivates Nonintenders?

Although intenders are markedly motivated by a healthy pregnancy, baby, and family, nonintenders are notably not motivated by pregnancy or preconception messages, making the marketing of PCH to this audience challenging. Formative research with women and couples who are not intending to become pregnant in the next 12 months and women who are not intending to become pregnant at all found that messages that mention the preconception period, pregnancy, or babies will not resonate with this group (Lewis et al., 2013; Squiers et al., 2013). This same research found that these women may be more receptive to messages targeting women's health or general wellness with a value proposition of self-nurturing and wellness. However, many women would question the need to practice some of the behaviors within the set, such as abstaining from alcohol, quitting smoking, and taking a folic acid supplement daily. Without the goal of a healthier baby, motivation for practicing these lifestyle behaviors, in particular, is weaker. In marketing terms, the anticipated benefit is too little for the price of undertaking this set of behaviors.

Although nonintenders lack a common motivator (i.e., healthier pregnancy) to undertake the set of behaviors and are less receptive to all of the recommended PCH behaviors, they may be strongly motivated by relevant behaviors within the set that reduce health risks and enhance their own health and well-being. For example, women who are not intending to get pregnant may be motivated by messages about effective contraception or STD prevention and screening as this corresponds to their stage of change. Nonintenders who have a chronic condition may be receptive to messages about talking to a doctor about their condition and future pregnancies. Chuang, Velott, and Weisman (2010) found that having certain chronic conditions (e.g., diabetes and hypertension) may influence a women's intention to become pregnant. These women may be motivated to contracept effectively because they are aware of increased risk of complications if they become pregnant or undertake some of the PCH behaviors to minimize complications if they do become pregnant.

What Is PCH as a Product to Nonintenders?

Because of the distinct lack of receptivity to messages related to babies or pregnancy, preconception health needs to be positioned quite differently for this audience. In particular,

PCH should not be labeled as “preconception health” with this audience. Despite the fact that many nonintenders may, in fact, become intentionally or unintentionally pregnant, this set of behaviors will need to be packaged differently to resonate with this audience. Although bundling behaviors may lead to coaction on multiple behaviors with intenders, nonintenders are not likely to consider adopting the recommended PCH behaviors appropriate to their health status, particularly if those recommended behaviors involve a change in lifestyle that would only be motivated by pregnancy, such as abstaining from alcohol. The set of behaviors for this audience will need to include pregnancy prevention behaviors, and some behaviors will need to be described differently. Regarding alcohol consumption, for example, intenders should receive messages about avoiding drinking all alcohol. Nonintenders should receive messages about risky alcohol consumption and its health effects, as well as guidance about reducing alcohol consumption (e.g., receive a brief intervention) and, if appropriate, information about available interventions.

For this group, PCH can be positioned as a way to achieve future goals, personal empowerment, and wellness. For example, in the *Show Your Love* campaign, PCH was positioned as associated with self-nurturing, a way a woman can take care of herself so that she can control her future and achieve all of her goals. Additionally, positioning PCH by linking it to a behavior that this group is already motivated to achieve may be one strategy to increase the relevance of PCH among this audience. For example, PCH can be positioned first as a way to enhance one’s own health and well-being and then as a way to prevent unwanted pregnancies, enhance relationships, or help manage a chronic condition.

What Is the PCH Goal for Nonintenders?

Promotional efforts for nonintenders can focus on the same PCH behaviors but require using different types of labels and value propositions (e.g., nurturing oneself and promoting well-being). Given that about half of women are not aware of preconception health or how their health before pregnancy could affect the health of a baby they might have in the future, the initial campaign goals are to increase awareness and receptivity to messages that focus on taking care of themselves only. An initial goal to promote for nonintenders is to increase their beliefs that selfcare behaviors can help them feel better now and help them achieve their future aspirations. In addition, a promotional goal for nonintenders is to increase awareness that they should see their health care provider for wellness visits. Promotional efforts should also result in increases in self-efficacy in and motivation to engage in selfcare behaviors. A key goal to promote for nonintenders is to develop a plan (ideally, in collaboration with their health care providers) that includes whether they desire children, healthy behaviors, and contraceptive use. Two final goals are for nonintenders to engage in self-care behaviors and to use effective contraception until they are ready to have a baby. By practicing self-care/PCH behaviors throughout their lives, nonintenders can be ready for an intended or an unintended pregnancy. Figure 3 displays the conceptual framework for promotion to nonintenders, which includes outcomes that could be achieved through an intensive, comprehensive program that includes interventions in the community and with providers.

Potential Extensions of the *Show Your Love* Strategy

In the preceding sections, we presented the audience strategy for *Show Your Love* using an audience-based, social marketing framework for intenders and nonintenders, the two primary audiences identified based on the adapted Transtheoretical Model. Despite the limitations of the Transtheoretical Model, segmenting the wide audience of women of childbearing age into these two segments helped campaign implementers to develop more effective behavior change strategies. Because intenders and nonintenders have very different attitudes toward PCH, the marketing mix for each of these two major audiences was different, especially in terms of how PCH was described and positioned to women. For example, *Show Your Love* was marketed to intenders as a pathway to a healthier baby and family. *Show Your Love* was marketed to nonintenders as a pathway to future goals, personal empowerment, and wellness.

Additionally, these two audiences provided a flexible framework for the launch of the *Show Your Love* campaign, given that the ultimate campaign implementation would be conducted by a network of organizations that were part of the National Preconception Health Consumer Workgroup, and these organizations serve a diverse group of women of childbearing age. Future initiatives could build on our current segmentation by creating smaller segments based on other relevant characteristics (e.g., age, socioeconomic status, race, ethnicity, and medical conditions). Based on the literature review, formative work, and analysis we conducted, the two audiences we have identified can be further segmented in future PCH social marketing campaigns as explained subsequently.

Intenders with chronic health conditions

One of the major risk factors for adverse pregnancy outcomes relates to chronic health conditions such as diabetes, obesity, hypertension, hypothyroidism, autoimmune diseases, and mental illness (Atrash, Johnson, Adams, Cordero, & Howse, 2006; Johnson, Posner, Biermann, & Cordero, 2006). A large number of women of childbearing age live with chronic health conditions. Fourteen percent have asthma or another respiratory illness, 20% have high cholesterol, 12% are obese, 11% have hypertension, 8% have thyroid disease, and 5% have diabetes. In addition, almost one quarter of women report having been diagnosed with depression or anxiety in the past 5 years (Ranji & Salganicoff, 2011).

Given the potential importance of social support and feelings of control among planners with chronic health conditions, one concept that emerged in our formative creative work that could extend the *Show Your Love* strategy to this subsegment is “managing health and behaviors strengthens relationships.” The call to action for this concept was to engage in health habits that promote health and “pass them along” to family members and, in this example, one’s spouse. The potential benefit or aspiration of the concept was that women and their partners could experience more mutual support by engaging in behaviors together that would decrease the risk due to the health threat and lead to the shared benefit of a health pregnancy, baby, and family. Key messages for this approach were to pass on health habits to loved ones, be healthy together, and capitalize on networks of support (i.e., one’s spouse, family, and friends). The focus on support and interdependence for women who are planners and have a chronic illness would address the importance of communication, support, and

being in a healthy relationship that were highlighted as very important for PCH in our formative research (Lewis et al., 2013; Squiers et al., 2013).

Nonintenders who smoke and drink

As stated earlier, half of all pregnancies are unintended with the highest rates among women who are low income, cohabitating with a partner, and between 18 and 24 years of age (Finer, 2006). One quarter of nonintenders is between 18 and 24 years old. Further, among nonintenders aged 18 to 24, 55% report drinking alcohol and 26% of nonintenders who are 18 to 24 smoke cigarettes regularly. These two behaviors may be more difficult to change together compared with some of the other PCH behaviors because of their potential of addiction and, thus, are important targets for change before a woman becomes pregnant (Song & Ling, 2011).

During formative testing for *Show Your Love*, one messaging concept that was developed, but ultimately not included, that relates to the values of this potential target audience was called “commit to yourself and your future.” The call to action was to get and stay healthy, make a plan for doing so, and use effective contraception. The potential benefit of this message was to a sense of empowerment, competence, and accomplishment as opposed to feeling like life’s goals are out of reach because of poor health habits and behaviors that might be holding a person back. Some of the core message ideas generated during the formative research phase for this concept related to making a commitment and investing in yourself and your future, committing to and achieving life goals via good health, and emphasizing that the “road starts here.” The focus on potential valued future outcomes and increases in personal efficacy that would come from quitting smoking or drinking would provide an important benefit from the status quo of drinking or smoking. This potential extension to the *Show Your Love* approach would also need to include effective behavioral counseling techniques to be successful. For example, fairly brief motivational interviewing strategies have been shown to be successful in reducing the risk of alcohol-exposed pregnancies and increasing effective birth control with precontemplators in this target age-group (Floyd et al., 2007; Ingersoll, Caperich, Hettema, Farrell-Carahan, & Penberthy, 2013; Strayer, Ingersoll, Pelletier, & Conway, 2013).

Conclusions

Promoting awareness and behavior change related to PCH is an important yet challenging goal. We reviewed the data and strategy underlying *Show Your Love*, a social marketing campaign launched in February 2013, and implemented by the National Preconception Health Consumer Workgroup, empanelled by the CDC Select Panel on Preconception Health and Health Care. There are many challenges to promoting PCH, including the number of clinical care components, the term itself, the estimate of unintended and unplanned pregnancies of 50% (e.g., Orr, Miller, James, & Babones, 2000), and the fact that 54.5% of the women of childbearing age (18 to 44 years) report one or more of three important risk factors for adverse birth outcomes—smoking, frequent drinking, and not having obtained an HIV status test (Anderson, Ebrahim, Floyd, & Atrash, 2006). Additionally, very few women and men (27%) report using effective contraception to

prevent and plan pregnancies as part of a PCH strategy (Mitchell et al., 2012), and evidence shows that unintended, mistimed, or unwanted pregnancies have increased odds of having a baby of low birth weight or preterm baby (Shah et al., 2011). In spite of these challenges, we developed a unique social marketing strategy based on multiple data sources and with collaborative input from the National Preconception Health Consumer Workgroup organizations.

We undertook a rigorous approach that included literature reviews, secondary data analysis of multiple nationally representative data sets, and extensive formative research with women and couples to arrive at the *Show Your Love* strategy and messaging approach that we believe will be responsive to the needs and aspirations of a large target audience—women of childbearing age. Because PCH does not fall neatly into a categorical funding stream, numerous national and regional groups have come together as part of the National Preconception Health Consumer Workgroup to implement the campaign (see Acknowledgments for organizations involved). Although the ultimate implementation approach necessitated a flexible and inclusive strategy for the *Show Your Love* campaign, we also outlined potential extensions that were not fully developed as part of the campaign plans but could be potentially fruitful avenues for other social marketers working in this area. Further, although we focused primarily on women because of campaign resources, clearly the PCH of men and couples would be important secondary audiences for future campaigns as well.

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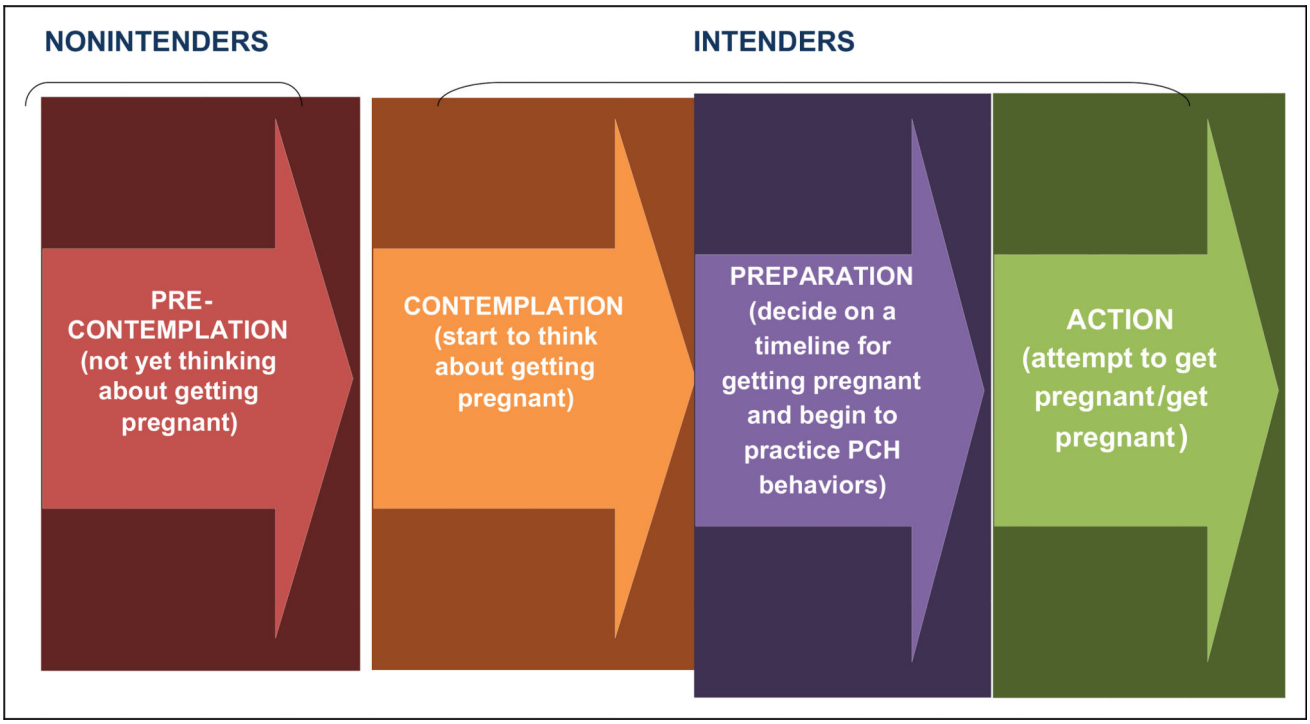

Figure 1.
Audience segments and stages of change.

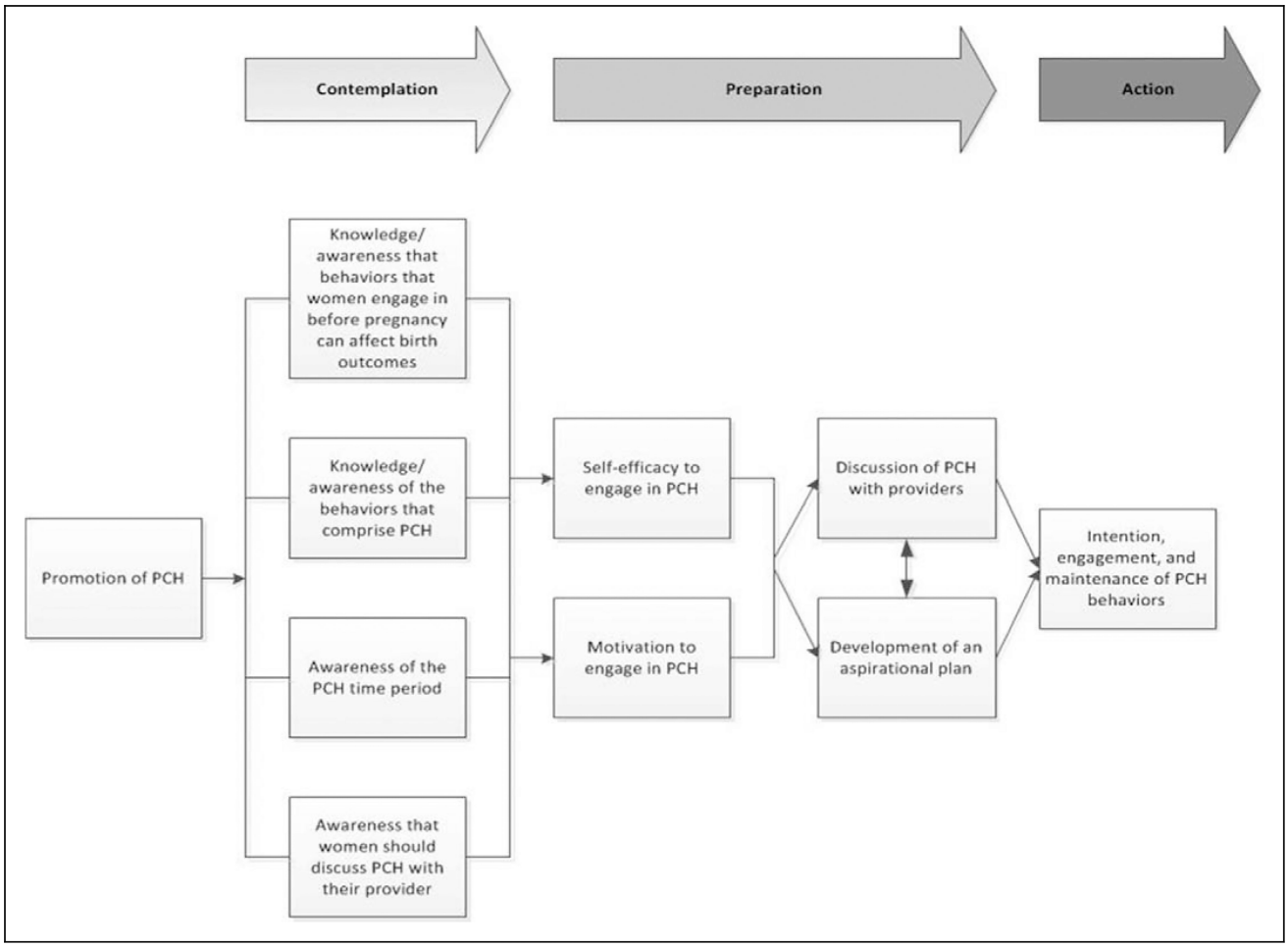

Figure 2.
Conceptual framework for promoting PCH to intenders.

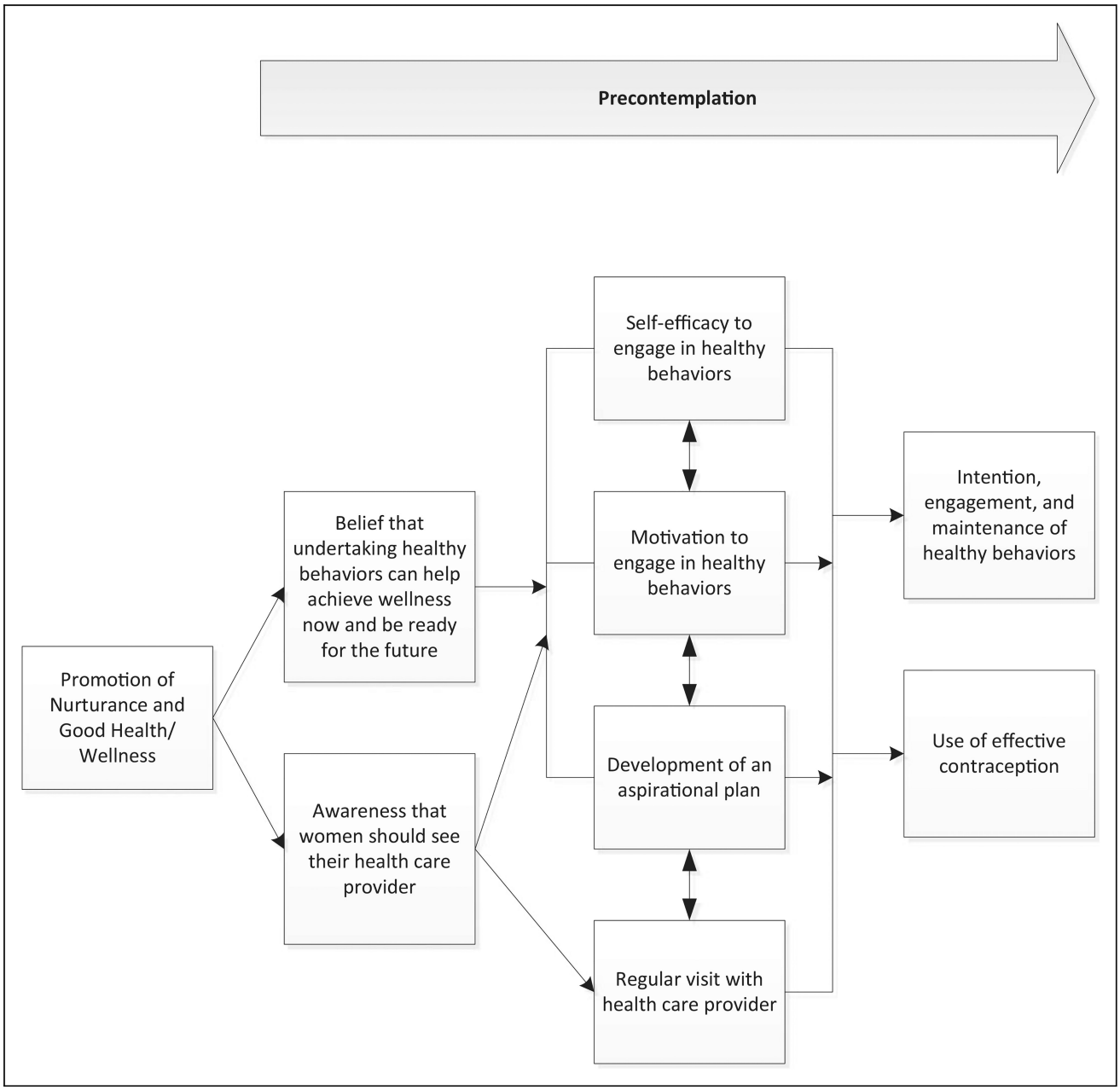

Figure 3.
Conceptual framework for promoting self-nurturance to nonintenders.

Table 1

Preconception Health Behaviors.

See your doctor to discuss your pregnancy intentions and specific ways to improve your health.
If you have chronic health problems, make a plan with your doctor.
Take a multivitamin with 400 micrograms of folic acid.
Don’t use illegal drugs.
Don’t drink alcohol if planning to become pregnant; reduce use if not planning.
Ask your doctor about a healthy weight for you.
Get a flu shot every year.
Exercise 30 minutes on most days of the week
Eat a healthy diet that includes fruits and vegetables every day.
Make sure you are up to date with your rubella (German measles) vaccines.
Get screened and treated for sexually transmitted diseases.
Don’t smoke or quit smoking.
Make sure you are up to date with your hepatitis B vaccines.
Get screened and treated for HIV/AIDS.
Review with your doctor all medicines you are taking to see if they are safe to take if you are trying to become pregnant.
Avoid harmful chemicals, metals, and other toxic substances around the home and in the workplace.
Manage and reduce stress and get mentally healthy.
Get help if experiencing partner violence.
Learn about your family’s health history.

Note. AIDS = acquired immunodeficiency syndrome; HIV = human immunodeficiency virus.

Table 2

Key Characteristics of Intenders Versus Nonintenders.

	Intenders (Percentage)	Nonintenders (Percentage)
Percentage of women aged 18–44[a]	14	86
Percentage of women 18–24[a]	31	24
Percentage of women 25–34	44	34
Percentage of women 35–44	25	42
High level of PCH awareness[a]	58	50
Have less than a high school education[a]	42	37
Percentage of women who indicated they had health insurance before they got pregnant[a]	70	45
Receptive to the idea of PCH[b]	Yes	No
Receptive to preconception health terminology[b]	Preconception health terminology resonates with this audience	Using terminology such as preconception health or any pregnancy-related terminology disengages nonintenders from the message
PCH motivating factors[b]	Desire to be pregnant, have a healthy pregnancy, have a healthy baby	Personal health and well-being

Note. PCH = preconception health.

[a] GfK/MRI (2011).

[b] Squiers et al. (2013).